Instructions

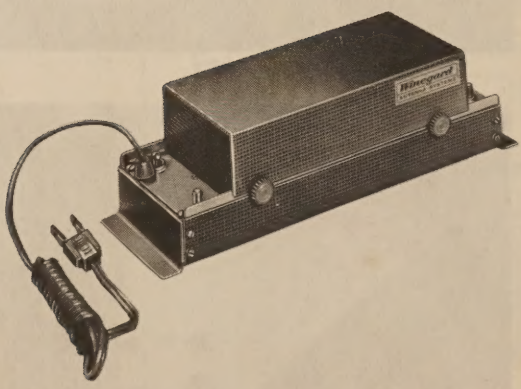
Winegard

ANTENNA SYSTEMS

VHF-TV

DISTRIBUTION AMPLIFIER

MODEL A-430



3000 Kirkwood St. Burlington, Iowa

PARTS LIST:

- Mod. A-430 Distribution Amplifier
- Two Mod. C-59 Coax Cable Connectors
- Mounting Bracket
- Two Mounting Screws

DESCRIPTION

Winegard Mod. A-430 is designed to provide enough signal to drive 1-40 line tap-offs or TV-FM outlets. Recommended for deluxe home systems, small motels, apartment houses, etc., it can be used with a Winegard Colortron or Stereotron preamplifier to drive 1-60 line tap-offs or TV-FM outlets. Voltage available at input jack operates the Colortron or Stereotron preamplifier directly, without a separate power supply.

SPECIFICATIONS

TUBES: four 6HA5. **GAIN:** +30db. **BANDPASS:** 54-108MC, 174-216MC. **RESPONSE:** ±.25db per 6MC channel. **NOISE FIGURE:** 3.7db lo-band, 5db hi-band. **MAX. SIGNAL INPUT:** gain control at max., .02V per band; gain control at min., 1V per band. **MAXIMUM SIGNAL OUTPUT:** 2V. **CONTROLS:** gain, 0-10db. **INPUT:** 75 or 300 ohm. **OUTPUT:** 75 ohm. Two C-59 75 ohm connectors supplied. Blue baked enamel perforated steel cabinet, 2 7/8 x 11 x 3 3/8". AC cord. **SWITCHES:** OFF-ON; power to preamplifier. AC fuse. 117V 60CPS 25 watts.

INSTRUCTIONS

For 70 ohm input cut red wire. (See Figure 1.)

To provide voltage for operating a Colortron or Stereotron preamplifier ahead of the A-430 tear off paper switch stop and move switch over. (See Figure 2.)

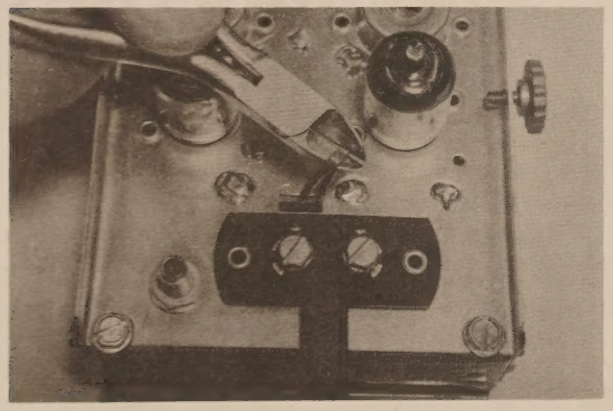


Fig. 1

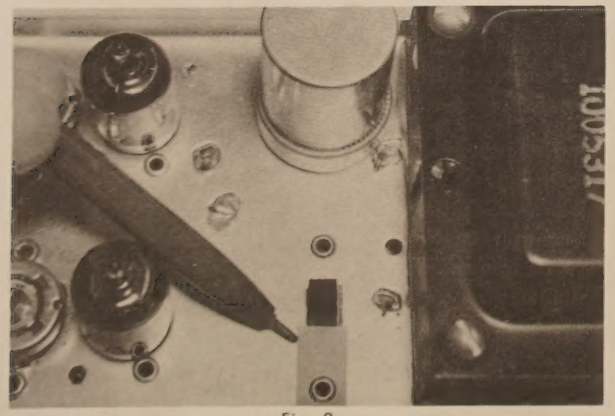


Fig. 2

MOUNTING

Mod. A-430 can be mounted on wall using the mounting bracket provided. (See Figure 3.) For maximum component life place in a well ventilated location.

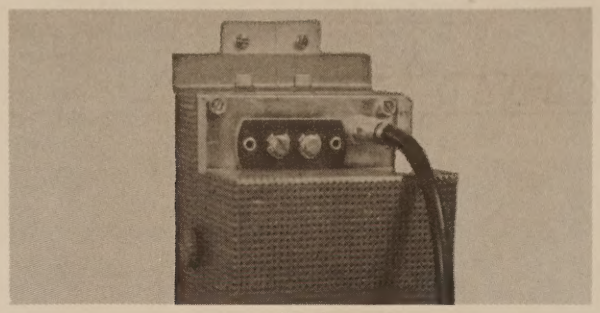


Fig. 3

ATTACHING 300 OHM TWIN-LEAD

DO NOT STRIP INSULATION FROM TWIN-LEAD. Just loosen screws, slide end of twin-lead under serrated washers and tighten screws. Washers pierce insulation and contact wires. (See Figure 4.)

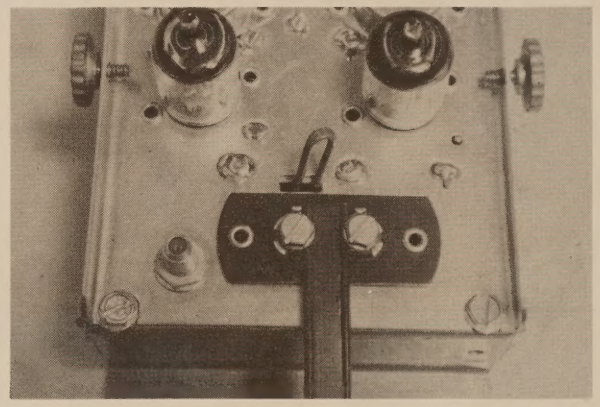
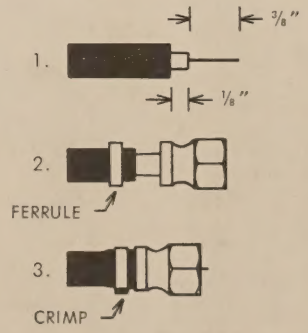


Fig. 4

HOW TO INSTALL MOD. C-59 CONNECTOR



1. Strip outer cover and metal braid back 1/2". Strip inner insulation back 3/8", leaving 1/8" exposed. Be careful not to cut wire conductor.

2. Slide ferrule over cable. Slide connector tip between metal braid and outer insulation. Push in tight.

3. Slide ferrule into position and crimp it tight with pliers or Mod. CR-1 crimping tool.

CHECKING MASTER ANTENNA SYSTEMS

1. The antenna array should be checked for picture definition and interference before installing the other system components. To do this, connect the output of the distribution amplifier you are going to use to a TV set through Winegard FP3- or FP7-, fixed, or VP-3 or VP-7, variable, attenuation pads equal to the loss you have computed for the longest leg in the system. Performance on the TV set will approximate that seen throughout the master antenna system when installed. Be sure to check both the picture and sound on each channel that is to be received. Any type of interference noticed should be corrected at the antenna before proceeding further.

Two types of interference are most frequently encountered. One is cross modulation, and the other is overload. Cross modulation occurs when the picture or sound carrier is modulated by a signal that is so strong it affects other frequencies. The remedy is to attenuate the offending signal. If there are gain controls on the distribution amplifier, first adjust these. If this doesn't correct the difficulty, it may be necessary to use attenuation pads or a tuned trap on the particular signal. For example, if Channel 4 is so strong that it overrides Channel 3, use an attentuation pad, or use a trap tuned to Channel 4.

Overload occurs when a signal is so strong that it saturates the distribution amplifier. Excessive buzz in the sound, sometimes coupled with unstable sync, may develop. The cure is to reduce the signal input of this particular channel by a pad or trap.

2. After checking out the antenna array, install the other system components. Check the coax cable for shorts and opens and for high resistance connections. To do this, disconnect each cable from the splitter, if used, and measure the resistance of the cable with an ohmmeter. Connect the ohmmeter across the braided shield and the inner conductor. It should read a little over 75 ohms. Be sure, though, that each line is terminated.

If a short or open is detected, check that line point-by-point until you find it. For convenience in checking systems, it is recommended that line tap-offs be left hanging out from the wall as you run the trunk line from room to room. Then, if it is necessary to go back through the system to find a source of difficulty, it will not be necessary to unscrew each wall plate until you find it. If everything checks out satisfactorily, the line tap-offs can then be attached to the wall.

3. If the cable checks out all right, but the signal is unsatisfactory, trace the signal coming from the antenna through the system with a field strength meter. If the trouble is narrowed down to an amplifier, first make a visual inspection for defects, such as a blown fuse, short circuit, open connection, etc. Then check tubes by substituting. If still isn't working properly, the unit may be returned to factory under the warranty.

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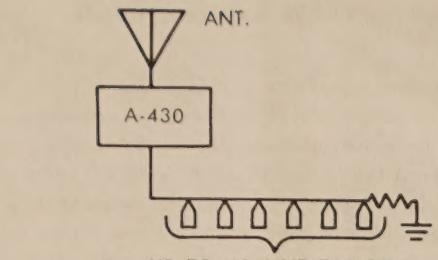

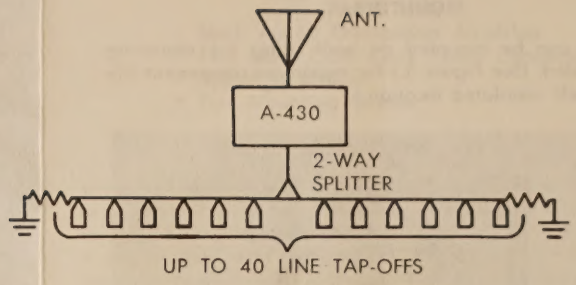

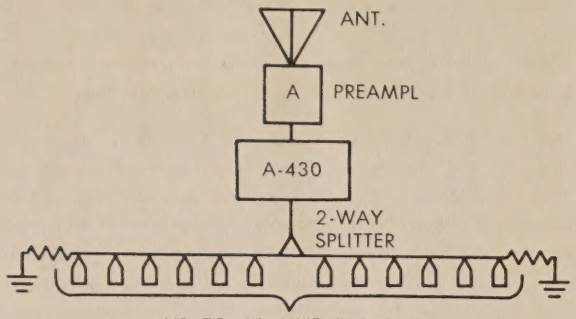

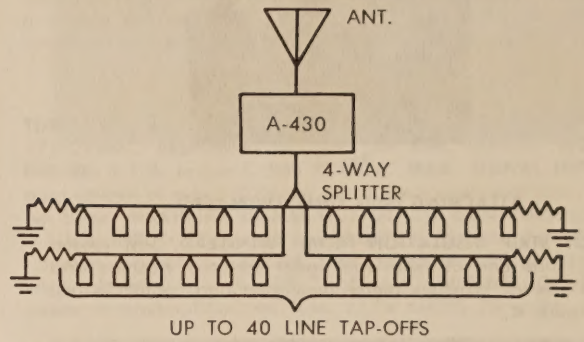

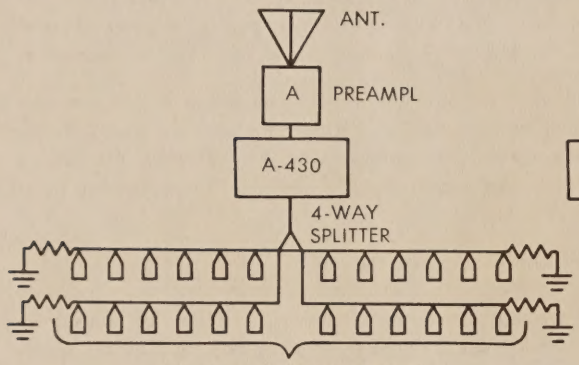

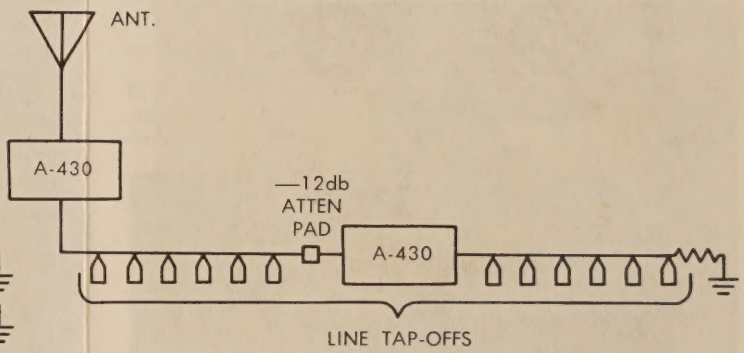

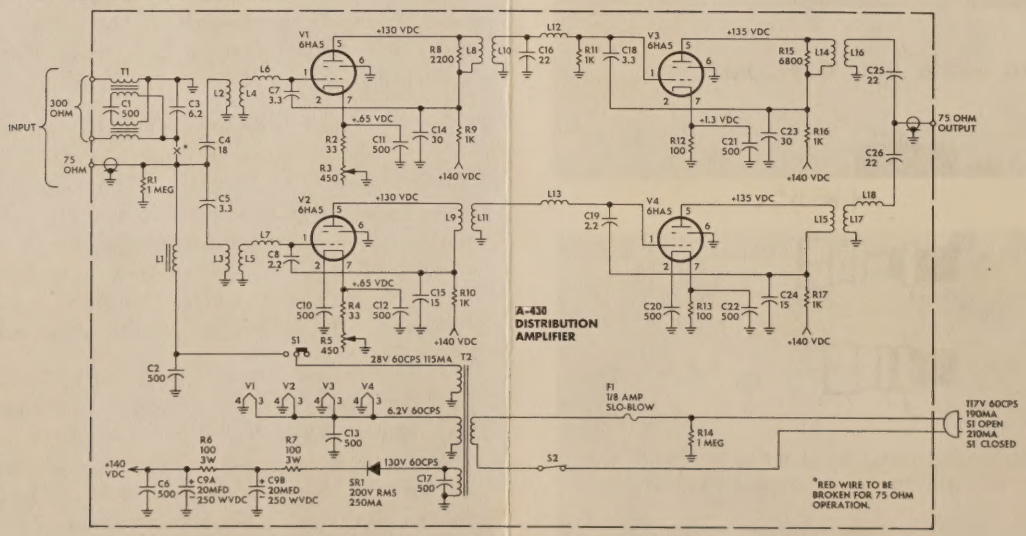

ALL RESISTANCE VALUES IN OHMS AND ALL CAPACITANCE VALUES IN MICROMICROFARADS UNLESS OTHERWISE INDICATED. ALL MEASUREMENTS TAKEN WITH 117V 60CPS INPUT TO POWER SUPPLY, NO SIGNAL INPUT, WITH OUTPUT TERMINATED WITH 75 OHM RESISTOR, USING VTVM OR 20,000 OHMS PER VOLT VOM.